

Cobra Science Olympiad invitational

Team Name: Key Student Names: \_\_\_\_\_  
 Team #: \_\_\_\_\_ Team Color: \_\_\_\_\_

Answer Sheet

Station A

1. eyepiece / ocular
2. diopter
3. stereo head
4. light source
5. stage (plate)
6. stage clip
7. lighting controls
8. focus knob
9. eyepiece
10. stage clips
11. focus knob
12. lighting controls
13. dual sources
14. stereo head
15. low mag, reflected light
16.  $10 \times 4 = 40\times$  magnification

order  
may  
vary

answers  
vary

18. rotten milk
19. age
20. time
21. nail size
22. number of paper clips
23. water temp
24. boil time
25. min of exposure
26. number of offspring
27. depth
28. temp

Station C

29. a
30. c
31. d
32. b
33. c
34. b
35. d

Station B

17. temp of room

Cobra Science Olympiad invitational

Team Name: \_\_\_\_\_ Student Names: \_\_\_\_\_  
 Team #: \_\_\_\_\_ Team Color: \_\_\_\_\_

36. d

37. a

Station D

38. d

39. c

40. d

41. b

Station E

42. beaker

43. Erlenmeyer's flask

44. graduated cylinder

45. test tube holder

46. test tube holder

47. pipette

48. probe

49. stirring rod

50. test tube

51. dropper

52. forceps

53. scissors

54. dissecting pin

55. test tube brush

56. Petri dish

57. well micro plate

Station F

58. 1.15 cm ( $\pm 0.05$  cm)

59. 0.71 cm ( $\pm 0.05$  cm)

60. 0.22 cm ( $\pm 0.05$  cm)

Station G

61. 3 g

62. 8 g

63. ~~27 g~~

64. 15 g

65. 46 g

66. 9 g

67. 575 g

68. 107 g

69. 51 g

70. ~~27 g~~

71. 1605

72. ~~575 g~~

73. 2601

(unknown, scale rounds  $\uparrow$  to whole #)  $\pm 1$  g

see 63

see 63

Cobra Science Olympiad invitational

Team Name: \_\_\_\_\_ Student Names: \_\_\_\_\_  
 Team #: \_\_\_\_\_ Team Color: \_\_\_\_\_

74. 165

76. ~~see 63~~

75. 70

77. 7.14

Station H

78. 2 slices

82. calcium

79. 420

83. false

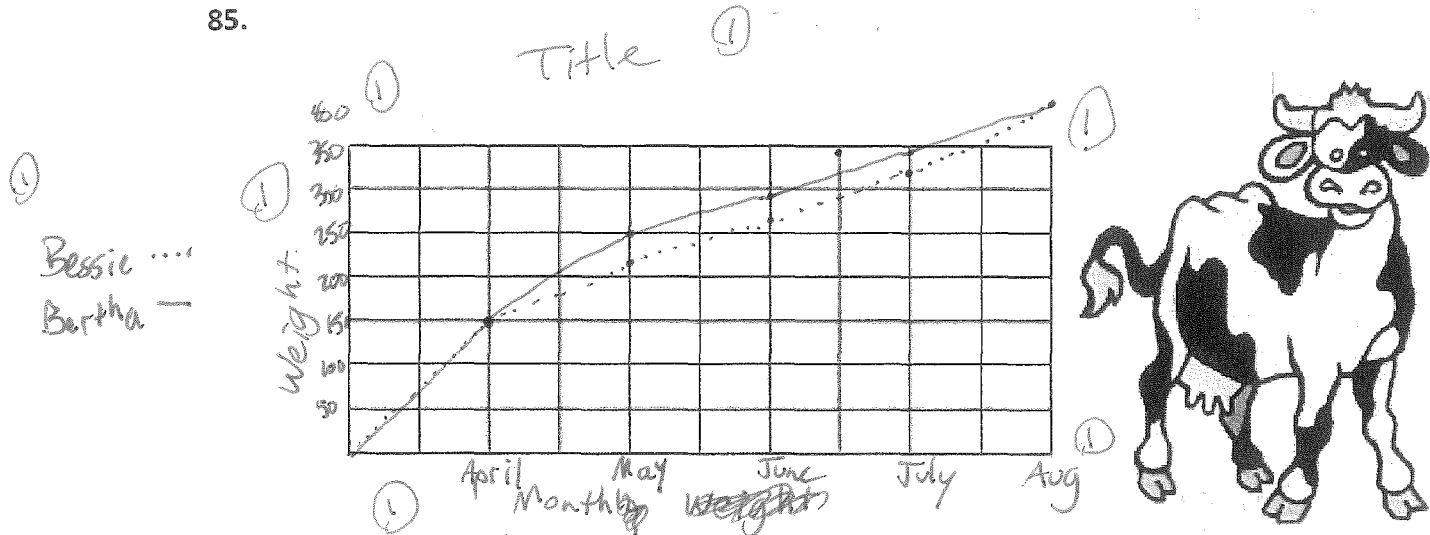
80. no

84. true

81. sodium & sat. fat

Station I

85.



86. Bertha gained weight faster...  
Needed twin cows to rule out genetic  
reasons to gain weight faster/slower

Station J

Cobra Science Olympiad invitational

Team Name: \_\_\_\_\_ Student Names: \_\_\_\_\_  
 Team #: \_\_\_\_\_ Team Color: \_\_\_\_\_

87. \_\_\_\_\_ g } answers vary. → 89. \_\_\_\_\_ g  
 88. \_\_\_\_\_ g } must have unit

90. The mass decreased because  $\text{CO}_2$  was being released, lowering the overall mass of the solution

Station K

Genotypes

$\frac{1}{2}$  ~~BB~~ BB  
 $\frac{1}{2}$  Bb  
 1:1

Phenotypes

$\frac{1}{2}$  Brown eyes  
 $\frac{1}{2}$  Blue eyes  
 1:1

91.

	B	b
B	BB	Bb
b	Bb	bb

Genotypes

$\frac{1}{1}$  ~~straight hair~~  
 Cc

Phenotypes

$\frac{1}{1}$  straight hair

92.

	C	c
C	CC	Cc
c	Cc	cc

Cobra Science Olympiad invitational

Team Name: \_\_\_\_\_ Student Names: \_\_\_\_\_

Team #: \_\_\_\_\_ Team Color: \_\_\_\_\_

①

Genotypes

$\frac{1}{4}$  BB  $\frac{2}{4}$  Bb  
 $\frac{1}{4}$  bb  
 1:2:1

93.

①

	B	b
B	BB	Bb
b	Bb	bb

Phenotypes

$\frac{1}{4}$  black  
 $\frac{1}{2}$  brown  
 $\frac{1}{4}$  blonde

①

①

Genotypes

$\frac{1}{2}$  Bb  
 1:0

94.

①

	B	B
b	Bb	Bb
b	Bb	Bb

Phenotypes

1 attached earlobes

①

①

Genotypes

$\frac{1}{4}$  TT  $\frac{3}{4}$  Tt  
 1:1

95.

①

	T	t
T	TT	Tt
T	Tt	Tt

Phenotypes

$\frac{1}{4}$  tall  
 $\frac{3}{4}$  ~~short~~ medium

①

①

Genotypes

$\frac{1}{4}$  FF  $\frac{3}{4}$  Ff  
 1:1

96.

①

	F	f
f	Ff	ff
f	Ff	ff

Phenotypes

$\frac{1}{4}$  Freckles  
 $\frac{3}{4}$  no freckles

①

$\frac{1}{2}$

Cobra Science Olympiad invitational

Team Name: \_\_\_\_\_ Student Names: \_\_\_\_\_

Team #: \_\_\_\_\_ Team Color: \_\_\_\_\_

Station L

97. land + water plants

98. answers vary  
P → C → C → C → C → C

99. answers vary

100. water fleas, beetles

predator  
or  
herbivore

101.

heron, perch

102.

too many: slugs, insects, beetles  
less food: fox, heron

103.

webs → many trophic levels, see  
patterns + relationships

Station M

104.

Apis mellifera OR  
(honeybee) ←